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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/644,261	Applicant(s) ANSARI ET AL.	
	Examiner PRITHAM PRABHAKHER	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,9,11,12,15,17-19,21,23,25-29,31 and 34-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,9,11,12,15,17-19,21,23,25-29,31 and 34-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/03/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-4, 6, 9-9, 11-12, 15, 17-19, 21, 23, 25-29, 31 and 34-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2.) Claims 11-12, 15, 19, 21 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) and further in view of Simon et al. (US Patent No.: 6757009B1).

*Regarding **Claim 11**, Chen et al. disclose an image capturing system (Figure 2, Column 9, Lines 38 et seq.) comprising:*

an integrated circuit (integrated circuit chip 299 in Figure 2) comprising:

*a first image module (210a is an image sensor, **Figure 2 and Column 5, Lines 1 et seq.**) selectively coupled to a processing engine by way of a selector (processing engine 270 also functions as a selector, Figure 2), the first image module operable to capture first image information (Each image sensor is its own camera capable of*

Art Unit: 2622

*capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*a second image module (210b is an image sensor, **Figure 2 and Column 5, Lines 1 et seq.**) selectively coupled to the processing engine by way of a selector (processing engine 270 also functions as a selector, Figure 2), the second image module operable to capture second image information (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*the selector operable to select between the first image information (desired pixels from first component) and the second image information (desired pixels from second component) in response to the processing engine identifying which of the first image information and the second image information comprises desired information and to selectively deliver the identified desired information to the processing engine (Processing engine 270 functions as a selector. Individual image data are transferred from each image sensor, **Column 5, Lines 36-45 of Chen et al.**. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras (components) virtual image pixels that have the least amount of blur (desired information), **Column 8, Lines 51-60 of Chen et al.**); and*

*the processing engine operable to perform an image processing operation on the selected identified desired information received from the selector (Video processor 270 is capable of performing an image processing function on information attained, **Figure 2 and Column 5, Lines 11-14; Column 8, Lines 1 et seq.** The final image is generated*

Art Unit: 2622

from the selected groups of pixels that have the least amount of blur from each of the components/cameras).

*However, Chen et al. do not explicitly disclose that individual pixels captured by the first image module and the second image module are randomly accessible. Simon et al. (US Patent No.: 6757009B1) teach of a digital camera system with a plurality of cameras that are capable of collecting more than one image while performing monitoring of an area, **Abstract of Simon et al.** Simon et al. disclose two separate video cameras 26 and 28 that are mounted side-by-side. Each camera 26 and 28 are in an imager in which each pixel location is randomly accessible, **Column 3, Lines 9-15 of Simon et al.** It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by as disclosed by Simon et al. into the teachings of Chen et al., because enables designated segments of the images of the cameras to be fed to an output without having to read out the remaining image portions which helps the processing speed, **Column 3, Lines 9-15 of Simon et al.***

*With regard to **Claim 12**, Chen et al. and Simon et al. disclose the system of claim 11, further comprising:*

a third image module (210c in Figure 2) communicatively coupled to the processing engine (Each image sensor is its own camera capable of capturing a view of

*a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq. of Chen et al.**; and*

*an interface operable to facilitate communication to a computing device (**Figures 1-2 and Column 4, Line 32 to Column 5, Line 58 of Chen et al.**).*

However Chen et al. and Simon et al. do not explicitly disclose the communication of the processing engine output to a computing device. Official notice is taken by the examiner on transferring the processing engine information from the integrated circuit chip disclosed by Chen et al. to an external computing device. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to transfer the output of the processing engine to an external computing system, because this would have enabled the freeing up of space in the integrated circuit and increasing its present memory capacity.

Regarding claim 12, Official Notice was taken in the most recent Office Action regarding transferring the processing engine information from the integrated circuit chip disclosed by Chen et al. to an external computing device. The Examiner's conclusion of common knowledge in the art is now taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of Official Notice in reply to the Office Action in which the common knowledge statement was made. Please see MPEP §2144.03.

*In regard to **Claim 15**, Chen et al. and Simon et al. disclose the system of claim 11, wherein the processing engine is operable to simultaneously perform an image processing operation on information received from the first image module and the second image module (**Column 3, Lines 36-40 of Simon et al.**). It would have been obvious and well known to one of ordinary skill in the art at the time of the invention to perform simultaneous processing on the first and second images from the first and second image modules, because this is an accurate and well known method of generating one image from multiple image sensors.*

*Regarding **Claim 19**, Chen et al. and Simon et al. do not disclose the system of claim 11, wherein the first image module comprises an optical zoom lens with autofocus. Official notice is taken by the examiner stating that it would have been obvious and well known at the time of the invention to have a lens that performed optical zoom with auto-focus. Having an optical zoom would have been better and more powerful than having a digital zoom and having the lens perform an auto-focus function would have saved the user the time and effort of manually focusing in on a scene to be imaged.*

Regarding claim 19, Official Notice was taken in the most recent Office Action regarding having a lens that performs optical zoom with auto-focus. The Examiner's conclusion of common knowledge in the art is now taken to be admitted prior art because Applicant has failed to traverse the Examiner's assertion of Official Notice in

reply to the Office Action in which the common knowledge statement was made. Please see MPEP §2144.03.

*Regarding **Claim 21**, Chen et al. and Simon et al. disclose the system of claim 11, wherein the first image information represents a first view of a scene and the second image information represents a second view of the scene and wherein at least a portion of the first information represents a portion of the scene captured in the second view (**Column 9, Lines 39 et seq. of Chen et al.**).*

*With regard to **Claim 43**, Chen et al. and Simon et al. disclose the image capturing system of claim 11, wherein the first image module has a first depth of focus (The object to be imaged is captured at different depths of focus. When in the first depth, say A or Z1, a first image sensor will capture the image. It should be noted that the second image sensor will also capture an image at this depth, but this does not affect how it reads on the claim, **Figures 4-5B of Chen et al.**), wherein the second image module has a second depth of focus (When a second depth of focus (Z2) is honed in on, the second lens (along with the first) will capture a second depth of focus different from the first depth of focus (Z1), **Figures 4-5B of Chen et al.; Column 8, Lines 1 et seq. of Chen et al.**), and wherein the first image module and the second*

*image module are integrated on a single integrated circuit with the processing engine (Integrated circuit chip 299 in **Figure 2 of Chen et al.**).*

*In regard to **Claim 44**, Chen et al. and Simon et al. disclose the image capturing system of claim 43, wherein the processing engine (270) evaluates the first image information at the first depth of focus and evaluates the second image information at the second depth of focus to determine which of the first image information and the second image information comprises the desired information (**Column 8, Lines 51-60 of Chen et al.**).*

3.) Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1) as applied to claim 11 above and further in view of Foote et al. (US Patent No.: 7015954B1)

*In regard to **Claim 17**, Chen et al. and Simon et al. disclose multiple cameras (Figure 2 of Chen et al.) that have different views (Column 9, Lines 39 et seq. of Chen et al.). However, Chen et al. do not explicitly disclose the system of claim 11, wherein the first image module has a resolution and the second module has a different resolution. Foote et al. disclose two different cameras (Ch1 and Ch2 from Figure 10 of Foote et al.). Before merging the images from Ch1 and Ch2, it is taught that the regions from Ch1 corresponding to the regions in Ch2 differ in resolution (the regions are darker in Ch1), **Column 11, Lines 41-47 of Foote et al.** It would have been obvious to one of*

Art Unit: 2622

ordinary skill in the art at the time of the invention to incorporate having one sensor differ in resolution when compared to the other sensor as taught by Foote et al. into the teachings of Chen et al. and Simon et al., because each sensor captures a different scene of view and the light falling on each portion of the scene of view could vary.

*Regarding **Claim 18**, Chen et al. and Simon et al. do not explicitly disclose that the system of claim 11, wherein the first image module comprises a digital zoom lens. Foote et al. disclose that digital zooming of a scene is possible with an array of cameras, **Column 1, Lines 26-30 of Foote et al.** It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate digital zooming taught by Foote et al. into the imaging system structure disclosed by Chen et al. and Simon et al., because digital zooming increases the size of the image to be captured and renders the image easier to view.*

4.) Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1) as applied to claim 11 above and further in view of Webster (US Patent No.: 6791076B2)

*Chen et al. and Simon et al. do not teach or explicitly disclose the image capturing system of claim 11, wherein the first image module comprises a lens integrated with the sensor. Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**. It would have been obvious to one of ordinary skill*

*in the art at the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Simon et al., because it prevents the lens assembly from moving relative to the image sensor and causing defocusing, **Column 5, Lines 7-12 of Webster.***

5.) Claims 1, 3-4, 6, 23, 25, 27 and 35-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) and further in view of Simon et al. (US Patent No.: 6757009B1) and Webster (US Patent No.: 6791076B2)

*In regard to **Claim 1**, Chen et al. disclose an image capture system (Figure 2, **Column 9, Lines 38 et seq.**) comprising:*

*a first image sensor lens module comprising a first sensor (210a is an image sensor, **Figure 2 and Column 5, Lines 1 et seq.**), the*

*first image sensor lens module (210a) operable to capture first image data (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*a second image sensor lens module (210b) comprising a second lens integrated with a second sensor, the second image sensor lens module operable to capture second image data (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq.**);*

*a processing engine operable to perform an image processing operation on at least a subset of the first image data and the second image data (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14**. There is a selector present in the processor 270 that selects groups of pixels from each of the components of images attained by the cameras, **Column 8, Lines 51-59**. Processing engine 270 functions as a selector and a triggering engine. Individual image data are transferred from each image sensor, **Column 5, Lines 36-45**. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras (components) virtual image pixels that have the least amount of blur (desired information), **Column 8, Lines 51-60**);*

*wherein the processing engine (270), the first image sensor lens module (210a) and the second image sensor lens module (210b) are integrated into a single integrated circuit device (The image sensors and processor 270 are mounted on the same integrated circuit chip 299, **Column 5, Lines 18-20**).*

*However, Chen et al. do not explicitly disclose that individual pixels captured by the first image sensor lens module and the second image sensor lens module are randomly accessible. Simon et al. (US Patent No.: 6757009B1) teach of a digital camera system with a plurality of cameras that are capable of collecting more than one image while performing monitoring of an area, **Abstract of Simon et al.** Simon et al. disclose two separate video cameras 26 and 28 that are mounted side-by-side. Each camera 26 and 28 are in an imager in which each pixel location is randomly accessible, **Column 3, Lines 9-15 of Simon et al.** It would have been obvious and well-known to*

Art Unit: 2622

*one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by as disclosed by Simon et al. into the teachings of Chen et al., because enables designated segments of the images of the cameras to be fed to an output without having to read out the remaining image portions which helps the processing speed, **Column 3, Lines 9-15 of Simon et al..***

*Although Chen et al. and Simon et al. disclose the different image sensors, the references do not teach or explicitly disclose that there are lenses integral with the image sensors. Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Simon et al., because prevents the lens assembly from moving relative to the image sensor and causing defocusing, **Column 5, Lines 7-12 of Webster**.*

*Regarding **Claim 3**, Chen et al., Simon et al. and Webster disclose the system of claim 1, further comprising:*

a third image sensor lens module (210c in Figure 2 of Chen et al.) operable to capture third image data wherein the third image sensor lens module is integrated into the single integrated circuit device, and wherein the processing engine is operable to perform the image processing operation based on at least the subset of the first image

Art Unit: 2622

*data and the second image data and at least a subset of the third image data (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq. of Chen et al.**. The image sensors and processor 270 are mounted on the same integrated circuit chip 299, **Column 5, Lines 18-20 of Chen et al.**).*

*Regarding **Claim 4**, Chen et al., Simon et al. and Webster disclose the system of claim 1, wherein the first and second image sensor lens modules are adjustably secured to a mounting surface. Webster discloses that the lens can be readily adjusted relative to the image sensor by rotating a lens support (Abstract of Webster). It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to have the lens' adjustably secured with the mounting surface, because this readily allows focusing of radiation on the active area of the image sensor, **Column 4, Lines 64 et seq. of Webster.***

*In regard to **Claim 6**, Chen et al., Simon et al. and Webster disclose the system of claim 1, further comprising a microphone assembly communicatively coupled to the processing engine to provide audio input (Microphone 28 in **Figure 1 of Monroe**). It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to provide audio output to go along with the capturing of images, because the audio signal can be used as a triggering event for activating the camera system into a transmission mode and/or alerting a server or monitoring station (**Column 8, Lines***

Art Unit: 2622

40-45) *which can be useful in the event of an intrusion during the surveillance of an area.*

*With regard to **Claim 23**, Chen et al. disclose an image capturing method comprising:*

*correlating a plurality of digital image sensors with different views of a scene wherein at least one of the plurality of digital image sensors comprise a lens (Each image sensor is its own camera capable of capturing a view of a scene and outputting the first view to the processor 270, **Figure 2 and Column 5, Lines 1 et seq., Column 9, Lines 39 et seq.**),*

*receiving first information that represents a first view of the scene obtained from a first one of the plurality of digital image sensors (210a is used to capture a first view of a scene, **Figure 2**);*

*receiving second information that represents a second view of a scene obtained from a second one of the plurality of digital image sensors (210b is used to capture a second view of a scene, **Figure 2**);*

*determining, by a processing engine (270), between the first information and the second information which of the first information and the second information comprises a desired portion of the scene (Individual image data are transferred from each image sensor, **Column 5, Lines 36-45**. During the synching of the image signals to generate a final image, there is a selection process present to select from each of the cameras*

Art Unit: 2622

*(components) virtual image pixels that have the least amount of blur (desired information), **Column 8, Lines 51-60**); and*

*selecting the determined desired portion of the scene to be delivered to the processing engine(The video processor 270 generates the final image from the plurality of virtual images attained using desired virtual pixels from each component/camera, **Column 8, Lines 1 et seq. of Chen et al.**).*

*However, Chen et al. do not explicitly disclose that individual pixels captured by the first image module and the second image module are randomly accessible. Simon et al. (US Patent No.: 6757009B1) teach of a digital camera system with a plurality of cameras that are capable of collecting more than one image while performing monitoring of an area, **Abstract of Simon et al.**. Simon et al. disclose two separate video cameras 26 and 28 that are mounted side-by-side. Each camera 26 and 28 are in an imager in which each pixel location is randomly accessible, **Column 3, Lines 9-15 of Simon et al.**. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by as disclosed by Simon et al. into the teachings of Chen et al., because enables designated segments of the images of the cameras to be fed to an output without having to read out the remaining image portions which helps the processing speed, **Column 3, Lines 9-15 of Simon et al.***

*Although Chen et al. and Simon et al. disclose the different image sensors, the reference does not teach or explicitly disclose that there are lenses integral with the image sensors. Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate lens' that were integral with the image sensors disclosed by Chen et al. and Simon et al., because prevents the lens assembly from moving relative to the image sensor and causing defocusing, **Column 5, Lines 7-12 of Webster**.*

*In regard to **Claim 25**, Chen et al., Simon et al. and Webster disclose the method of claim 23, further comprising performing an image signal processing operation on the first information (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14 of Chen et al.**).*

*Regarding **Claim 27**, Chen et al., Simon et al. and Webster disclose the method of claim 23, further comprising:*

*determining that the second view of the scene comprises another desired portion of the scene (The second view of the scene can be captured by image capturing device 210b and comprises another portion of the scene, **Column 5, Lines 1 et seq.; Column 9, Lines 39 et seq. of Chen et al.**); and*

*allowing the second information to progress to the processing engine after the first information is delivered to the processing engine (**Column 8, Lines 51-59; Column 9, Lines 39 et seq. of Chen et al.**).*

*Regarding **Claim 35**, Chen et al., Simon et al. and Webster disclose the image capture system of claim 1, wherein the first image sensor lens module does not include a computer readable memory (Figure 2 of Chen et al. shows no memory present on the lens modules).*

*In regard to **Claim 36**, Chen et al., Simon et al. and Webster disclose the image capture system of claim 1, wherein there is no optical component spatially situated between the first lens and first sensor (Webster discloses a lens integrated with an image sensor, **Column 5, Lines 7-12 of Webster**).*

*With regard to **Claim 37**, Chen et al., Simon et al. and Webster disclose the image capturing method of claim 23, wherein none of the plurality of image sensors includes a computer readable memory (Figure 2 of Chen et al. shows no memory present on the lens modules).*

*Regarding **Claim 38**, Chen et al., Simon et al. and Webster disclose the image capturing method of claim 23, wherein an integrated circuit comprises the plurality of*

*digital image sensors (The image sensors and processor 270 are mounted on the same integrated circuit chip 299, **Column 5, Lines 18-20 of Chen et al.**).*

*In regard to **Claim 39**, Chen et al., Simon et al. and Webster disclose the image capture system of claim 1, wherein the first lens of the first image sensor lens module has a first depth of focus (The object to be imaged is captured at different depths of focus. When in the first depth, say A or Z1, a first image sensor will capture the image. It should be noted that the second image sensor will also capture an image at this depth, but this does not affect how it reads on the claim, **Figures 4-5B of Chen et al.**), wherein the second lens of the second image sensor lens module has a second depth of focus different from the first depth of focus (When a second depth of focus (Z2) is honed in on, the second lens (along with the first) will capture a second depth of focus different from the first depth of focus (Z1), **Figures 4-5B of Chen et al.; Column 8, Lines 1 et seq. of Chen et al.**), and wherein the first image sensor lens module and the second image sensor lens module are integrated on an integrated circuit with the processing engine (Integrated circuit chip 299 in **Figure 2 of Chen et al.**).*

*Regarding **Claim 40**, Chen et al., Simon et al. and Webster disclose the image capture system of claim 39, wherein the triggering engine (there is a triggering engine present in video processor 270 of Chen et al.) is operable to evaluate scene view information to identify which of the first information and second information comprises desired information by evaluating the first information at the first depth of focus and*

evaluating the second information at the second depth of focus (Column 8, Lines 51-60 of Chen et al.).

6.) Claims 8, 26, 28-29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1) and Webster (US Patent No.: 6791076B2) as applied to claims 1 and 23 above and further in view of Monroe (US Patent No.: 7023913B1)

*Regarding **Claim 8**, Chen et al., Simon et al. and Webster don not explicitly disclose the system of claim 1, further comprising a triggering engine operable to signal a selector to route the second image data (pixel information from a second component) to the processing engine in response to a determination that the second image data should capture scene activity. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49; Figures 16 and 19 of Monroe**. Monroe discloses a MUX 13 that functions as a pixel selector. Inputs from multiple cameras monitoring an area are coupled through separate motion compressors 12a-12n. The MUX is responsive to select an individual camera signal from the image sensor selector (processor 15 is connected to a network that sends it signals to give to the cameras, **Column 14, Lines 63-64 of Monroe**) at the control input (52) to select the pixel streams from the image sensors 10a-10n that only correspond to the pixels that are located within the target area of the object being*

Art Unit: 2622

tracked, **Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe**. Pixels outside the view of the object being tracked are avoided as can be seen from **Figure 16 of Monroe**). Only the compressed pixels that fall within the target view are sent to the MUX 13 and then sent to the processor 15 for processing. Areas and pixels that are not concerned with the target being tracked will not be sent to the processor, **Figures 16 and 19; Column 12, Lines 44-65; Column 13, Lines 13-28 of Monroe**). The images and selected pixels are random since the object being tracked is never at the same location. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate the function of selecting individual pixels of the first and second image modules and enabling them to be randomly accessible by the processing engine as disclosed Monroe into the teachings of Chen et al., because this significantly reduces the amount of visual data to only the data that's important while preserving quality and increasing processing speed, **Column 3, Lines 12-17 and Lines 57-65 of Monroe**.

In regard to **Claim 26**, Chen et al., Simon et al. and Webster disclose the method of claim 23, further comprising performing an image signal processing operation on the first information (Video processor 270 is capable of performing an image processing function, **Figure 2 and Column 5, Lines 11-14 of Chen et al.**).

Chen et al., Simon et al. and Webster do not explicitly disclose initiating presentation of the first information on a display after performing the image signal processing operation. Monroe (US Patent No.: 7023913B1) teaches of a digital camera

Art Unit: 2622

*system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49;***

***Figures 16 and 19 of Monroe. Figure 16 of Monroe** shows displaying a first information after performing an image signal processing function. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to display the information after performing the image signal processing function, because this would enable a user to view the captured and synthesized images.*

*With regard to **Claim 28**, Chen et al., Simon et al. and Webster do not disclose the method of claim 23, further comprising: correlating the first view to a first image sensor of the plurality of image sensors and the second view to a second image sensor of the plurality of image sensors; and receiving a directional identification signal indicating that the first view contains a desired scene activity.*

*Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49; Figures 16 and 19 of Monroe**. Monroe also discloses correlating the first view to a first image sensor of the plurality of image sensors (**Figures 16 and 19 of Monroe**) and the second view to a second image sensor of the plurality of image sensors (**Figures 16 and 19 of Monroe**); and receiving a directional identification signal indicating that the first view contains a desired scene activity (**Column 12, Lines 44-65 and Column 13, Lines 13-28 of Monroe**). It would have been obvious and well-known to one of ordinary skill in the art*

at the time of the invention to correlate the first view to a first image sensor of the plurality of image sensors and the second view to a second image sensor of the plurality of image sensors; and receiving a directional identification signal indicating that the first view contains a desired scene activity as disclosed by Monroe, because this lets a viewer clearly observe an object from afar while alerting the viewer of the direction of an activity so the viewer can take necessary action during a surveillance operation.

*Regarding **Claim 29**, Chen et al., Simon et al., and Webster do not disclose the method of claim 23, further comprising:*

*performing an image signal processing operation on the first information; and outputting post processed image signal information. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49; Figures 16 and 19 of Monroe. Figure 16 of Monroe** shows outputting/displaying information after performing an image signal processing function. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to output/display the information after performing the image signal processing function, because this would enable a user to view the captured and synthesized images.*

*In regard to **Claim 31**, Chen et al., Simon et al., and Webster do not disclose the method of claim 29, further comprising streaming the post processed image signal*

information. Monroe (US Patent No.: 7023913B1) teaches of a digital camera system with a plurality of cameras that is capable of collecting more than one image while performing surveillance and monitoring of an area, **Column 2, Lines 36-49; Figures 16 and 19 of Monroe. Figure 16 of Monroe** shows displaying information after performing an image signal processing function. It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to display the information after performing the image signal processing function, because this would enable a user to view the captured and synthesized images.

7.) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1) and Webster (US Patent No.: 6791076B2) as applied to claim 1 above and further in view of Glassman et al. (US Patent No.: 5920337)

With regard to **Claim 2**, Chen et al., Monroe and Webster disclose the system of claim 1, further comprising a support having an exterior surface that comprises the mounting surface as disclosed above in claim 1. However, Chen et al., Monroe and Webster do not disclose that the support has a generally spherical geometry. Glassman et al. teach of multiple sensors on a mounting surface (60 which is fabricated on an IC in Figure 10 of Glassman et al.) that has a generally spherical geometry (Column 10, Line 63 to Column 11; Line 3 and Figure 10 of Glassman et al.). It would have been

Art Unit: 2622

*obvious and well-known to one of ordinary skill in the art to incorporate a spherical shaped mounting surface into the design disclosed by Chen et al., Monroe and Webster, because this enables the system to obtain a three hundred and sixty degree panoramic view of a scene to be imaged, **Column 2, Lines 58 to 59 of Glassman et al..***

8.) Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1), Webster (US Patent No.: 6791076B2) and Monroe (US Patent No.: 7023913B1) as applied to claims 1 and 8 above and further in view of Glassman et al. (US Patent No.: 5920337)

*In regard to **Claim 9**, Chen et al., Simon et al., Webster et al. and Monroe disclose multiple cameras (Figure 2 of Chen et al.) capable of capturing different images. Chen et al. also disclose an interface operable to communicatively couple an output to an external computing system (**Figures 1-2 and Column 4, Line 32 to Column 5, Line 58 of Chen et al.**).*

However, Chen et al., Simon et al., Webster et al. and Monroe do not explicitly disclose the system of claim 8 further comprising: a support having an exterior surface that comprises the mounting surface, the support having a geometry that facilitates

Art Unit: 2622

differing orientations of the first and the second image sensor lens modules; and an interface operable to communicatively couple an output of the processing engine to an external computing system.

*Glassman et al. teach of multiple sensors on a mounting surface (60 which is fabricated on an IC in Figure 10 of Glassman et al.) that has a generally spherical geometry (Column 10, Line 63 to Column 11; Line 3 and Figure 10 of Glassman et al.). The system has a support having an exterior surface that comprises the mounting surface, the support having a geometry that facilitates differing orientations of the first and the second image sensor lens modules (Figure 10 of Glassman et al. show that the support has a geometry that facilitates differing orientations of the image sensor modules); and an interface operable to communicatively couple an output of the processing engine to an external computing system (Processed images can be sent to a computer, **Column 4, Lines 62-63 of Glassman et al.**).*

*It would have been obvious and well-known to one of ordinary skill in the art to incorporate a spherical shaped mounting surface into the design disclosed by Chen et al. and Webster, because this enables the system to obtain a three hundred and sixty degree panoramic view of a scene to be imaged, **Column 2, Lines 58 to 59 of Glassman et al.** It would have further been obvious to couple an output of the processing engine to an external computing system, because this would have enabled the freeing up of space in the camera and increasing its present memory capacity.*

9.) Claims 41-42 and 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (US Patent No.: 7425984B2) in view of Simon et al. (US Patent No.: 6757009B1) and Webster (US Patent No.: 6791076B2) as applied to claims 1 and 23 above and further in view of Foote et al. (US Patent No.: 7015954B1)

*In regard to **Claim 41**, Chen et al., Simon et al. and Webster do not explicitly disclose the image capture system of claim 1, wherein the processing engine performs a Pan, Tilt and Zoom operation on the identified desired information. Foote et al. disclose panning, tilting and zooming of an array of cameras, **Column 1, Lines 19-20 and 55-62 of Foote et al.** It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to enable the multiple cameras disclosed by Chen et al., Simon et al. and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.*

*With regard to **Claim 42**, Chen et al., Simon et al. and Webster do not explicitly disclose the image capture system of claim 1, wherein the processing engine performs a digital magnification by interpolating between pixels in a center of the identified desired information. Foote et al. disclose that digital zooming of a scene is possible with an array of cameras, **Column 1, Lines 26-30 of Foote et al.** It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to incorporate digital zooming taught by Foote et al. into the teachings disclosed by Chen*

et al., Simon et al. and Webster, because digital zooming increases the size of the image to be captured and renders the image easier to view.

*Regarding **Claim 45**, Chen et al., Simon et al. and Webster do not explicitly disclose the image capturing method of claim 23, wherein selecting between the first information and the second information comprises performing a digital panning operation on the first information and on the second information. Foote et al. disclose panning, tilting and zooming of an array of cameras, **Column 1, Lines 19-20 and 55-62 of Foote et al.** It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to enable the multiple cameras disclosed by Chen et al., Simon et al. and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.*

*In regard to **Claim 46**, Chen et al., Simon et al. and Webster do not explicitly disclose the image capturing method of claim 23, wherein selecting between the first information and the second information comprises performing a digital tilt operation on the first information and on the second information. Foote et al. disclose panning, tilting and zooming of an array of cameras, **Column 1, Lines 19-20 and 55-62 of Foote et al.** It would have been obvious and well-known to one of ordinary skill in the art at the time of the invention to enable the multiple cameras disclosed by Chen et al., Simon et al. and Webster to be capable of panning, tilting and zooming in on desired information, because this increases the field of view of the cameras while enabling the area of interest to be more visible to a user.*

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRITHAM PRABHAKHER whose telephone number is (571)270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

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